

BEST AVAILABLE COPY**REMARKS**

Claims 17 and 20 have been amended, claim 19 has been canceled, and claims 21-37 have been added. As such, claims 17, 18, and 20-37 are currently pending in the case. Further examination and reconsideration of the presently claimed application are respectfully requested.

Allowable Subject Matter

Claim 19 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicant sincerely appreciates the Examiner's recognition of the patentable subject matter recited in this claim. To expedite prosecution, claim 19 has been canceled and its limitations have been incorporated into base claim 17, placing claim 17 in condition for allowance. Accordingly, removal of this objection is respectfully requested.

Section 102 Rejection

Claims 17, 18, and 20 were rejected under 35 U.S.C. § 102(c) as being anticipated by U.S. Patent No. 6,661,065 to Kunikiyo (hereinafter referred to as "Kunikiyo"). As noted above, claim 17 has been amended to incorporate the allowable limitations of claim 19. Thus, claim 17 and claims dependent therefrom are in condition for allowance. Accordingly, removal of this rejection is respectfully requested.

Patentability of the Added Claims

The present amendment adds claims 21-37. As will be set forth in more detail below, claims 21-37 are patentably distinct over the cited art. Accordingly, approval of added claims 21-37 is respectfully requested.

Kunikiyo does not teach or suggest a semiconductor topography having nitride layer comprising deuterium arranged above a SONOS structure. Added claim 23 recites: "[a] semiconductor topography, comprising: a silicon-oxide-nitride-oxide-silicon (SONOS) structure; and a nitride layer comprising deuterium arranged above the SONOS structure." Support for such a claim may be found, for example, on page 4, lines 8-9: "[i]n some embodiments, the method may include forming a deuterated nitride layer above the SONOS structure . . ." Although Kunikiyo teaches an ONO layer including deuterium,

Kunikiyo fails to teach or provide motivation to form a deuterated nitride layer above a SONOS structure. Consequently, added claim 23 is patentably distinct over the cited art.

Kunikiyo does not teach or suggest a semiconductor topography having an ONO structure which includes deuterium in at least one but less than all of the layers of the structure. Added claim 31 recites: “[a] semiconductor topography comprising an oxide-nitride-oxide (ONO) structure, wherein at least one but less than all the layers of the ONO structure comprise deuterium.” Support for such a claim may be found, for example, on page 13, lines 24-28, “... in some embodiments, deuterium dopants 34 may be arranged in a non-successive manner throughout SONOS structure 28. For example, in some embodiments, magnified portion 32 may include deuterium dopants within the upper portion of silicon layer 22 and nitride layer 16, without deuterium dopants arranged within upper oxide layer 18.” Kunikiyo teaches an ONO structure including deuterium within all layers, specifically the lower oxide layer, nitride layer and upper oxide layer of the structure. There is, however, no teaching or suggestion of any one of such layers of not including deuterium. Consequently, there is no motivation within Kunikiyo to teach the limitations of added claim 31. Accordingly, claim 31 is asserted to be patentably distinct over the cited art.

For at least the reasons set forth above, Kunikiyo does not teach or suggest the limitations of added claims 23 and 31. Therefore, claims 23 and 31, as well as claims dependent therefrom, are asserted to be patentably distinct over the cited art. Accordingly, approval of added claims 21-37 is respectfully requested.

CONCLUSION

This response constitutes a complete response to all of the issues raised in the Office Action mailed June 29, 2004. In view of the remarks traversing the rejections, Applicants assert that pending claims 17, 18, and 20-37 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Conley Rose, P.C. Deposit Account No. 50-3268/5298-08101.

Respectfully submitted,


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